

File 2:INSPEC 1969-2005/Jan W4
(c) 2005 Institution of Electrical Engineers
File 6:NTIS 1964-2005/Jan W4
(c) 2005 NTIS, Intl Cpyrght All Rights Res
File 8:Ei Compendex(R) 1970-2005/Jan W3
(c) 2005 Elsevier Eng. Info. Inc.
File 34:SciSearch(R) Cited Ref Sci 1990-2005/Jan W5
(c) 2005 Inst for Sci Info
File 35:Dissertation Abs Online 1861-2005/Jan
(c) 2005 ProQuest Info&Learning
File 65:Inside Conferences 1993-2005/Jan W5
(c) 2005 BLDSC all rts. reserv.
File 94:JICST-EPlus 1985-2005/Dec W3
(c)2005 Japan Science and Tech Corp(JST)
File 95:TEME-Technology & Management 1989-2005/Jan W1
(c) 2005 FIZ TECHNIK
File 99:Wilson Appl. Sci & Tech Abs 1983-2004/Nov
(c) 2004 The HW Wilson Co.
File 144:Pascal 1973-2005/Jan W4
(c) 2005 INIST/CNRS
File 239:Mathsci 1940-2005/Mar
(c) 2005 American Mathematical Society
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
(c)2001 ProQuest Info&Learning
File 483:Newspaper Abs Daily 1986-2005/Feb 02
(c) 2005 ProQuest Info&Learning
File 248:PIRA 1975-2005/Jan W3
(c) 2005 Pira International

Set	Items	Description
S1	2188882	IMAGE??
S2	119590	S1(3N) (SEGMENT? OR PARTS OR PARTITION? OR PORTION? OR PART OR SECTOR? OR SECTION? OR REGION? OR PIECE? OR FRAGMENT?)
S3	5002	GRAPHIC? AND SYNTHETIC?
S4	29990	(PICTURE? OR PHOTO OR PHOTOGRAPH??) AND NATURAL
S5	7160290	CLASSES OR CLASSIFICAT? OR GROUP??? OR CLASSIFY? OR CLASS
S6	459929	FUZZY() LOGIC? OR NEURAL() NETWORK? OR RULE(3N) BASED
S7	3019622	TEXTURE? OR COLOR? OR COLOUR? OR EDGE? OR VARIANCE OR BIAS OR SKEW? OR FITNESS OR EDGE? OR LUMINANCE
S8	4912	EDGE? AND HORIZONTAL? AND VERTICAL?
S9	391	SGLD OR SPATIAL() (GREY OR GRAY) () LEVEL() DEPENDENC?
S10	20758	(GREY OR GRAY) () LEVEL?
S11	2117571	HISTOGRAM? OR ALGORITHM?
S12	41389	AU=(PRABHAKAR, S? OR CHENG, H? OR FAN, Z? OR HANDLEY, J? - OR LIN, Y? OR PRABHAKAR S? OR CHENG H? OR FAN Z? OR HANDLEY - J? OR LIN Y?)
S13	12	(IDENTIF? OR DETERMIN? OR DETECT?) AND S3 AND S4
S14	7	S13 AND S5
S15	5	RD S14 (unique items)
S16	1	S12 AND S3 AND S4
S17	0	S16 NOT S15
S18	3803	S2 AND S5 AND S6
S19	1621	S18 AND S7
S20	9	S19 AND S8
S21	9	S20 NOT (S16 OR S15)
S22	5	S21 NOT PY=>2002

S23	2	RD S22 (unique items)
S24	48	S19 AND S9
S25	39	S24 AND S11
S26	39	S25 NOT (S20 OR S16 OR S15)
S27	28	S26 NOT PY=>2002
S28	24	RD S27 (unique items)
S29	1	S28 AND (SYNTHETIC OR NATURAL)
S30	85	S3 AND S4
S31	37	S30 AND (S7 OR S8 OR S9 OR S10)
S32	15	S31 AND S5
S33	11	S32 NOT (S25 OR S20 OR S16 OR S15)
S34	10	S33 NOT PY=>2002
S35	7	RD S34 (unique items)

File 348:EUROPEAN PATENTS 1978-2005/Jan W03

(c) 2005 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20050127,UT=20050120

(c) 2005 WIPO/Univentio

Set	Items	Description
S1	467309	IMAGE??
S2	62229	S1(3N) (SEGMENT? OR PARTS OR PARTITION? OR PORTION? OR PART OR SECTOR? OR SECTION? OR REGION? OR PIECE? OR FRAGMENT?)
S3	143	GRAPHIC? (3N) SYNTHETIC?
S4	732	(PICTURE? OR PHOTO OR PHOTOGRAPH??) (3N) NATURAL
S5	883759	CLASSES OR CLASSIFICAT? OR GROUP??? OR CLASSIFY? OR CLASS
S6	14169	FUZZY() LOGIC? OR NEURAL() NETWORK? OR RULE(3N) BASED
S7	777416	TEXTURE? OR COLOR? OR COLOUR? OR EDGE? OR VARIANCE OR BIAS OR SKEW? OR FITNESS OR EDGE? OR LUMINANCE
S8	2134	EDGE? (3N) HORIZONTAL? (3N) VERTICAL?
S9	28	SGLD OR SPATIAL() (GREY OR GRAY) () LEVEL() DEPENDENC?
S10	5240	(GREY OR GRAY) () LEVEL?
S11	135431	HISTOGRAM? OR ALGORITHM?
S12	676	AU=(PRABHAKAR, S? OR CHENG, H? OR FAN, Z? OR HANDLEY, J? OR LIN, Y? OR PRABHAKAR S? OR CHENG H? OR FAN Z? OR HANDLEY J? - OR LIN Y?)
S13	0	(IDENTIF? OR DETERMIN? OR DETECT?) (3N) S3(3N) S4
S14	25413	IC=G06K?
S15	0	S12 AND S9
S16	323	S12 AND S5
S17	63	S16(S) S1
S18	8	S16 AND S14
S19	8	S18 NOT AD=20010928:20050303/PR
S20	13	S2(S) S5(S) S7(S) S8
S21	0	S20(S) S9
S22	0	S20(S) S10
S23	6	S20(S) S11
S24	6	S23 NOT S18
S25	5	S24 NOT AD=20010928:20050303/PR
S26	2	S3(S) S4
S27	2	S26 NOT (S23 OR S18)

File 344:Chinese Patents Abs Aug 1985-2004/May
(c) 2004 European Patent Office
File 347:JAPIO Nov 1976-2004/Aug(Updated 041203)
(c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200508
(c) 2005 Thomson Derwent

Set	Items	Description
S1	1229757	IMAGE??
S2	117702	S1(3N) (SEGMENT? OR PARTS OR PARTITION? OR PORTION? OR PART OR SECTOR? OR SECTION? OR REGION? OR PIECE? OR FRAGMENT?)
S3	664	GRAPHIC? AND SYNTHETIC?
S4	5973	(PICTURE? OR PHOTO OR PHOTOGRAPH??) AND NATURAL
S5	1015178	CLASSES OR CLASSIFICAT? OR GROUP??? OR CLASSIFY? OR CLASS
S6	13691	FUZZY()LOGIC? OR NEURAL()NETWORK? OR RULE(3N)BASED
S7	1847787	TEXTURE? OR COLOR? OR COLOUR? OR EDGE? OR VARIANCE OR BIAS OR SKEW? OR FITNESS OR EDGE? OR LUMINANCE
S8	31692	EDGE? AND HORIZONT? AND VERTICAL?
S9	4	SGLD OR SPATIAL() (GREY OR GRAY) ()LEVEL()DEPENDENC?
S10	2595	(GREY OR GRAY) ()LEVEL?
S11	41980	HISTOGRAM? OR ALGORITHM?
S12	4011	AU=(PRABHAKAR, S? OR CHENG, H? OR FAN, Z? OR HANDLEY, J? - OR LIN, Y? OR PRABHAKAR S? OR CHENG H? OR FAN Z? OR HANDLEY - J? OR LIN Y?)
S13	2	(IDENTIF? OR DETERMIN? OR DETECT?) AND S3 AND S4
S14	4	S9 NOT S13
S15	2	S12 AND S3 AND S4
S16	0	S15 NOT (S9 OR S13)
S17	1590	S2 AND S5 AND S7
S18	2	S17 AND S8 AND S10
S19	2	S18 NOT (S9 OR S13)
S20	2	S19 NOT S15
S21	4	S17 AND SYNTHETIC? AND NATURAL
S22	3	S21 NOT (S19 OR S15 OR S9 OR S13)
S23	3	S2 AND S3 AND S4
S24	2	S23 NOT (S9 OR S13 OR S15 OR S19 OR S21)

IEEE HOME | SEARCH IEEE | SHOP | WEB ACCOUNT | CONTACT IEEE


[Membership](#) | [Publications/Services](#) | [Standards](#) | [Conferences](#) | [Careers/Jobs](#)
IEEE Xplore®
 RELEASE 1.8

 Welcome
 United States Patent and Trademark Office


» Se

[Help](#) | [FAQ](#) | [Terms](#) | [IEEE Peer Review](#)
[Quick Links](#)

Welcome to IEEE Xplore®

- ☐ Home
- ☐ What Can I Access?
- ☐ Log-out

Tables of Contents

- ☐ Journals & Magazines
- ☐ Conference Proceedings
- ☐ Standards

Search

- ☐ By Author
- ☐ Basic
- ☐ Advanced
- ☐ CrossRef

Member Services

- ☐ Join IEEE
- ☐ Establish IEEE Web Account
- ☐ Access the IEEE Member Digital Library

IEEE Enterprise

- ☐ Access the IEEE Enterprise File Cabinet

Print Format

Your search matched **71** of **1124699** documents.A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.**Refine This Search:**

You may refine your search by editing the current search expression or entering a new one in the text box.

(image or video or picture) <paragraph> (classif* or s

☐ Check to search within this result set**Results Key:****JNL** = Journal or Magazine **CNF** = Conference **STD** = Standard**1 Learning to detect natural image boundaries using local brightness, color, and texture cues***Martin, D.R.; Fowlkes, C.C.; Malik, J.;*

Pattern Analysis and Machine Intelligence, IEEE Transactions on , Volume: 26 , Issue: 5 , May 2004

Pages:530 - 549

[\[Abstract\]](#)[\[PDF Full-Text \(5245 KB\)\]](#)

IEEE JNL

2 Forward-and-backward diffusion processes for adaptive image enhancement and denoising*Gilboa, G.; Sochen, N.; Zeevi, Y.Y.;*

Image Processing, IEEE Transactions on , Volume: 11 , Issue: 7 , July 2002

Pages:689 - 703

[\[Abstract\]](#)[\[PDF Full-Text \(461 KB\)\]](#)

IEEE JNL

3 Automatic model-based semantic object extraction algorithm*Jianping Fan; Xingquan Zhu; Lide Wu;*

Circuits and Systems for Video Technology, IEEE Transactions on , Volume: 11 , Issue: 10 , Oct. 2001

Pages:1073 - 1084

[\[Abstract\]](#)[\[PDF Full-Text \(360 KB\)\]](#)

IEEE JNL

4 Matching and retrieval based on the vocabulary and grammar of col patterns*Mojsilovic, A.; Kovacevic, J.; Jianying Hu; Safranek, R.J.; Ganapathy, S.K.;*Image Processing, IEEE Transactions on , Volume: 9 , Issue: 1 , Jan. 2000
Pages:38 - 54

[\[Abstract\]](#) [\[PDF Full-Text \(932 KB\)\]](#) IEEE JNL

5 EdgeFlow: a technique for boundary detection and image segmentation

Wei-Ying Ma; Manjunath, B.S.;

Image Processing, IEEE Transactions on , Volume: 9 , Issue: 8 , Aug. 2000

Pages:1375 - 1388

[\[Abstract\]](#) [\[PDF Full-Text \(3116 KB\)\]](#) IEEE JNL

6 Region competition: unifying snakes, region growing, and Bayes/ML for multiband image segmentation

Song Chun Zhu; Yuille, A.;

Pattern Analysis and Machine Intelligence, IEEE Transactions on , Volume:

18 , Issue: 9 , Sept. 1996

Pages:884 - 900

[\[Abstract\]](#) [\[PDF Full-Text \(1952 KB\)\]](#) IEEE JNL

7 Segmenting images using normalized color

Healey, G.;

Systems, Man and Cybernetics, IEEE Transactions on , Volume: 22 , Issue:

1 , Jan.-Feb. 1992

Pages:64 - 73

[\[Abstract\]](#) [\[PDF Full-Text \(1172 KB\)\]](#) IEEE JNL

8 Integration of vision modules and labeling of surface discontinuities

Gamble, E.B.; Geiger, D.; Poggio, T.; Weinshall, D.;

Systems, Man and Cybernetics, IEEE Transactions on , Volume: 19 , Issue:

6 , Nov.-Dec. 1989

Pages:1576 - 1581

[\[Abstract\]](#) [\[PDF Full-Text \(672 KB\)\]](#) IEEE JNL

9 Graph-theoretical approach to colour picture segmentation and classification

Vlachos, T.; Constantinides, A.G.;

Communications, Speech and Vision, IEE Proceedings I , Volume: 140 , Issue:

1 , Feb. 1993

Pages:36 - 45

[\[Abstract\]](#) [\[PDF Full-Text \(896 KB\)\]](#) IEEE JNL

10 Recursive neural networks for object detection

Bianchini, M.; Maggini, M.; Sarti, L.; Scarselli, F.;

Neural Networks, 2004. Proceedings. 2004 IEEE International Joint Conference

on , Volume: 3 , 25-29 July 2004

Pages:1911 - 1915 vol.3

[\[Abstract\]](#) [\[PDF Full-Text \(729 KB\)\]](#) IEEE CNF

11 Estimating the photorealism of images: distinguishing paintings from

photographs*Cutzu, F.; Hammoud, R.; Leykin, A.;*

Computer Vision and Pattern Recognition, 2003. Proceedings. 2003 IEEE Computer Society Conference on , Volume: 2 , 18-20 June 2003

Pages:II - 305-12 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(1803 KB\)\]](#) IEEE CNF**12 Learning affinity functions for image segmentation: combining patch-based and gradient-based approaches***Fowlkes, C.; Martin, D.; Malik, J.;*

Computer Vision and Pattern Recognition, 2003. Proceedings. 2003 IEEE Computer Society Conference on , Volume: 2 , 18-20 June 2003

Pages:II - 54-61 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(1149 KB\)\]](#) IEEE CNF**13 Color and texture priors in active contours for model-based image segmentation***Zhou, Q.; Ma, L.; Chelberg, D.; Celenk, M.;*

Image and Signal Processing and Analysis, 2003. ISPA 2003. Proceedings of the 3rd International Symposium on , Volume: 2 , 18-20 Sept. 2003

Pages:690 - 695 Vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(1563 KB\)\]](#) IEEE CNF**14 A robust text detection algorithm in images and video frames***Qixiang Ye; Wen Gao; Weiqiang Wang; Wei Zeng;*

Information, Communications and Signal Processing, 2003 and the Fourth Pacific Rim Conference on Multimedia. Proceedings of the 2003 Joint Conference of the Fourth International Conference on , Volume: 2 , 15-18 Dec. 2003

Pages:802 - 806 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(420 KB\)\]](#) IEEE CNF**15 Bayesian supervised segmentation of objects in natural images using low-level information***Boldys, J.;*

Image and Signal Processing and Analysis, 2003. ISPA 2003. Proceedings of the 3rd International Symposium on , Volume: 2 , 18-20 Sept. 2003

Pages:1054 - 1059 Vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(1592 KB\)\]](#) IEEE CNF[1](#) [2](#) [3](#) [4](#) [5](#) [Next](#)

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	8157	(image or picture or video) with classif\$8	USPAT
2	BRS	L2	12	1 same ((edge or contour) same (color or colour) same texture)	USPAT
3	BRS	L3	18	1 same ((edge or contour) same (color or colour) same texture)	USPAT
4	BRS	L4	449	(image or picture or video) with classif\$8	EPO
5	BRS	L5	0	4 same ((edge or contour) same (color or colour) same texture)	EPO
6	BRS	L6	3984	(image or picture or video) with classif\$8	DERWEN T
7	BRS	L7	3	6 same ((edge or contour) same (color or colour) same texture)	DERWEN T
8	BRS	L8	4828	(image or picture or video) with classif\$8	US- PGPUB
9	BRS	L9	19	8 same ((edge or contour) same (color or colour) same texture)	US- PGPUB
10	BRS	L10	3114	(image or picture or video) with classif\$8	JPO
11	BRS	L11	1	10 same ((edge or contour) same (color or colour) same texture)	JPO

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	88	(binary with classif\$6) and (neural adj2 network)	USPAT
2	BRS	L2	0	(binary with classif\$6) and (neural adj2 network)	EPO
3	BRS	L3	2	(binary with classif\$6) and (neural adj2 network)	DERWEN T
4	BRS	L4	1	(binary with classif\$6) and (neural adj2 network)	JPO
5	BRS	L5	0	(binary with classif\$6) and (neural adj2 network)	IBM_TD B

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☒ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.